

aiwa

MD/CD STEREO RADIO CASSETTE RECORDER

CSD-MD50

OPERATING INSTRUCTIONS

En (English)

MANUAL DE INSTRUCCIONES

E (Español)

MODE D'EMPLOI

F (Français)

BEDIENUNGSANLEITUNG

D (Deutsch)

ISTRUZIONI PER L'USO

I (Italiano)

GEbruIKSAANWIJZING

NL (Nederlands)

NÁVOD K OBSLUZE

CZ (Česky)

HASZNÁLATI UTASÍTÁS

M (Magyar)

INSTRUKCJA OBSŁUGI

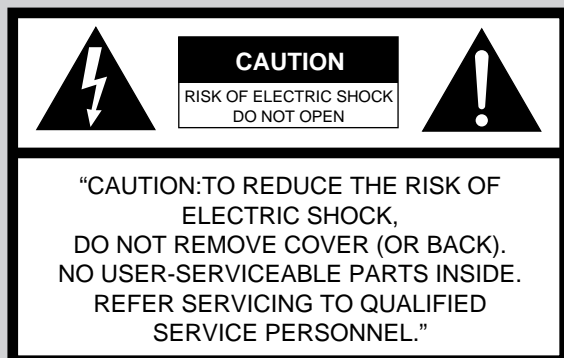
PO (Polski)

EZ



WARNING

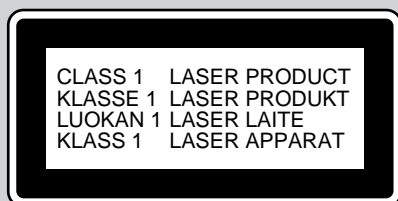
TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.



CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

This compact disc player is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT label is located on the exterior.



CAUTION!



Invisible laser radiation when open and interlocks defeated. Avoid exposure to beam.

ADVARSEL!

Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!

Laitteen käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

WARNING!

Om apparaten används på annat sätt än i denna bruksanvisning specificerats, kan användaren utsätta för osynlig laser-strålning, som överskrider gränsen för laserklass 1.

PRECAUTIONS

Read the Operating Instructions carefully and completely before operating the unit. Be sure to keep the Operating Instructions for future reference. All warnings and cautions in the Operating Instructions and on the unit should be strictly followed, as well as the safety suggestions below.

Installation

- Water and moisture** — Do not use this unit near water, such as near a bathtub, wasbowl, kitchen sink, laundry tub, in a wet basement, swimming pool, or the like.
- Heat** — Do not use this unit near sources of heat, including heating vents, stoves, or other appliances that generate heat. It also should not be placed in temperatures less than 5°C or greater than 35°C.
- Mounting surface** — Place the unit on a flat, even surface.
- Ventilation** — The unit should be situated with adequate space around it so that proper heat ventilation is assured. Allow 10 cm clearance from the rear and the top of the unit, and 5 cm from each side.
 - Do not place the unit on a bed, rug, or similar surface that may block the ventilation openings.
 - Do not install the unit in a bookcase, cabinet, or airtight rack where ventilation may be impeded.
- Objects and liquid entry** — Take care that objects or liquids do not get inside the unit through the ventilation openings.
- Carts and stands** — When placed or mounted on a stand or cart, the unit should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the unit or cart to overturn or fall.
- Condensation** — Moisture may form on the CD pickup lens when:
 - The unit is moved from a cold spot to a warm spot
 - The heating system has just been turned on
 - The unit is used in a very humid room
 - The unit is cooled by an air conditioner
 When this unit has condensation inside, it may not function normally. Should this occur, leave the unit for a few hours, then try to operate again.
- Wall or ceiling mounting** — The unit should not be mounted on a wall or ceiling, unless specified in the Operating Instructions.

Electric Power

- Power sources** — Connect this unit only to power sources specified in the Operating Instructions, and as marked on the unit.
- AC power cord**
 - When disconnecting the AC power cord, pull it out by the AC power plug. Do not pull the cord itself.
 - Never handle the AC power plug with wet hands, as this could result in fire or shock.
 - Power cords should be firmly secured to avoid being severely bent, pinched, or walked upon. Pay particular attention to the cord from the unit to the power socket.
 - Avoid overloading AC power plugs and extension cords beyond their capacity, as this could result in fire or shock.
- When not in use** — Unplug the AC power plug from the AC power socket if the unit will not be used for several months or more. When the cord is plugged in, a small amount of current continues to flow to the unit, even when the power is turned off.

Maintenance

Clean the unit only as recommended in the Operating Instructions.

Damage Requiring Service

Have the unit serviced by a qualified service technician if:

- The AC power cord or plug has been damaged
- Foreign objects or liquid have got inside the unit
- The unit has been exposed to rain or water
- The unit does not seem to operate normally
- The unit exhibits a marked change in performance
- The unit has been dropped, or the cabinet has been damaged

DO NOT ATTEMPT TO SERVICE THE UNIT YOURSELF.

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TIMER

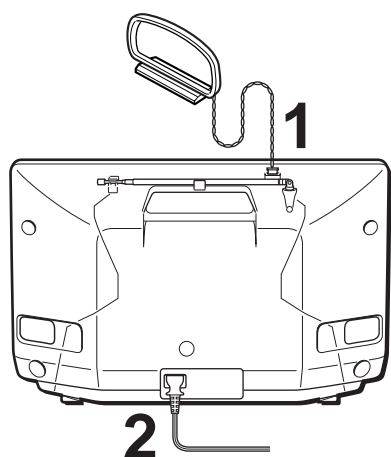
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En

CONNECTIONS



IMPORTANT

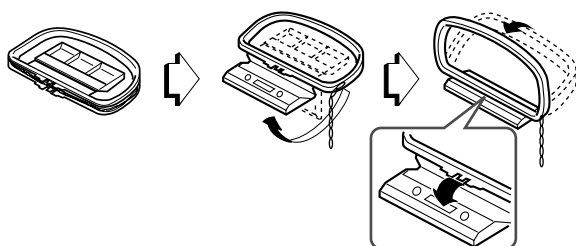
Be sure to connect the AM antenna first, then connect the AC cord.

CAUTION

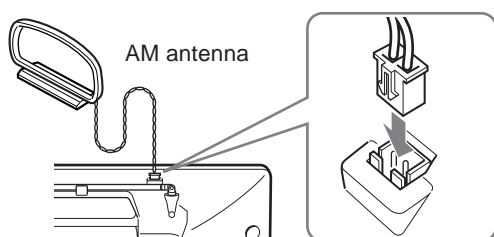
Use only the supplied AC cord. Use of other cords may result in the risk of fire.

To stand the AM antenna on a surface

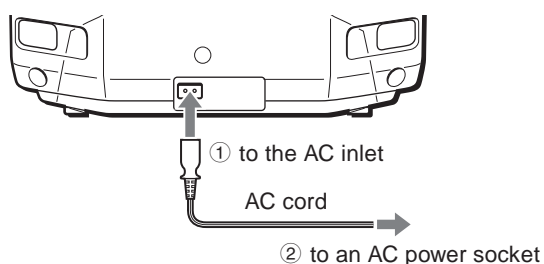
Fix the claw to the slot.



1 Connect the supplied AM antenna to the AM LOOP terminal.



2 Connect the unit to an AC outlet using the supplied AC cord.



CONCERNING THE DISPLAY WINDOW'S DEMO DISPLAY

When the AC cord is plugged into an AC power socket for the first time after purchase, a demo display will appear in the display window. When the power is turned on, the demo display will end. When the power is turned off, the demo display will appear again. Until the clock is set, the demo display will appear whenever the power is turned off. (For setting the clock, see page 6.)

NOTE

- Do not disconnect the AC cord while the power is on. Otherwise, the data concerning the contents of the MD recording may not be registered properly.
- Do not bring the AM antenna near the AC cord since noise will be picked up.
- Do not unwind the AM antenna wire.

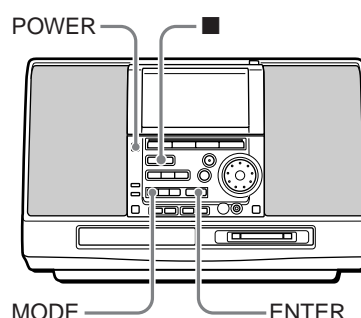
ABOUT THE POWER ECONOMIZING MODE

You can turn on or off the power economizing mode of this unit.

When the power economizing mode is turned on

Power will be turned off automatically if 10 minutes have elapsed while no MD, CD or tape is being played and no operation is performed. (Power will not be turned off automatically, however, while listening to radio broadcast.) The power economizing mode is set to off when you purchase the unit.

To turn on/off the power economizing mode



1 Press the POWER button to turn on the unit.

2 While pressing the ■ button, press the POWER button.

3 Press the MODE button to select "ECO ON" or "ECO OFF."

To activate the power economizing mode, select "ECO ON."
To deactivate the power economizing mode, select "ECO OFF."

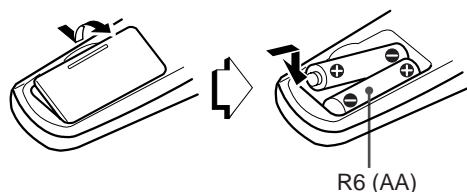
4 Within 5 seconds, press the ENTER button.

Or simply leave the unit without pressing the ENTER button for more than 5 seconds.

REMOTE CONTROL

Inserting batteries

Detach the battery cover on the rear of the remote control and insert two R6 (size AA) batteries.



When to replace the batteries

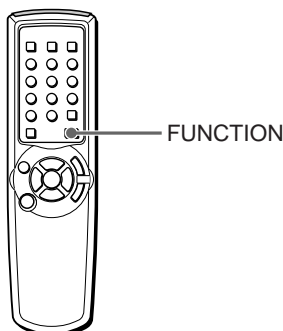
The maximum operational distance between the remote control and the sensor on the main unit should be approximately 5 meters. When this distance decreases, replace the batteries with new ones.

To use the remote control

Some operations can be performed using the buttons on the remote control only, or those on the main unit only, while others can be performed using the buttons on the main unit as well as on the remote control. This instructions manual clearly describes the buttons available for each operation.

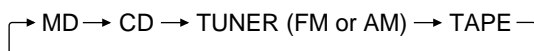
NOTE

- The ► button on the remote control starts play of the MD, CD or the tape, if the corresponding function is selected.
- If the unit is not going to be used for an extended period of time, remove the batteries to prevent possible electrolyte leakage.
- The remote control may not operate correctly when:
 - The line of sight between the remote control and the unit is exposed to intense light, such as direct sunlight.
 - Other remote controls are used nearby (television, etc.)

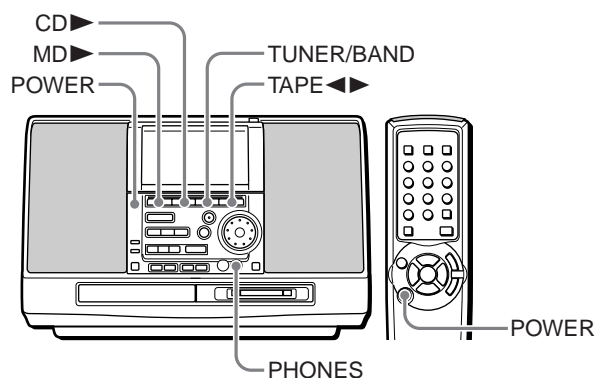


To use the FUNCTION button

Each time the FUNCTION button is pressed while power is on, one of the functions is selected cyclically, as follows.



BEFORE OPERATION



To turn the unit on

Press the POWER button.

The unit can also be turned on by the following ways:

- Pressing the CD ► button turns the unit on and starts play of the inserted CD.
- Pressing the MD ► button turns the unit on and starts play of the inserted MD.
- Pressing the TUNER/BAND button turns the unit on and tunes in to the previously tuned station.
- Pressing the TAPE ◀► button turns the unit on and starts play of the loaded tape.

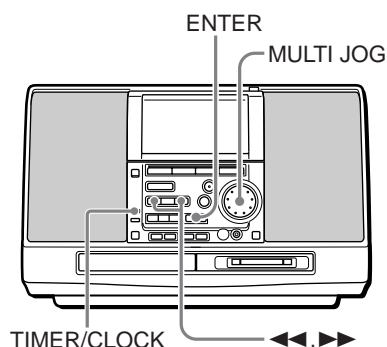
To turn the unit off

Press the POWER button.

To use the headphones

Connect the headphones with a stereo mini plug (ø3.5 mm) to the PHONES jack. No sound will be heard from the speakers while the headphones are plugged in.

SETTING THE CLOCK



When the power is turned off after setting the clock

If the power economizing mode is off, the clock remains displayed.
If the power economizing mode is on, the clock also clears.

To display the clock when another display is shown

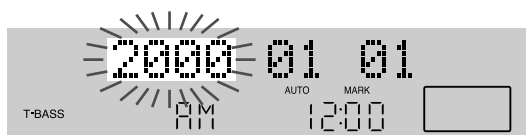
Press the TIMER/CLOCK button. The clock is displayed for 5 seconds.

- 1 Press the **TIMER/CLOCK** button repeatedly until **CLOCK ?** appears.



- 2 Within 5 seconds, press the **ENTER** button.

The year flashes on the display.



- 3 Within 1 minute, press the **◀◀** or **▶▶** button, or turn the **MULTI JOG** dial to set the year.

The year can be set between 1999 and 2040.

- 4 Within 1 minute, press the **ENTER** button.

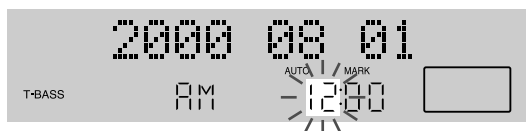
The month flashes on the display.

- 5 Within 1 minute, press the **◀◀** or **▶▶** button, or turn the **MULTI JOG** dial to set the month, then within 1 minute, press the **ENTER** button.

The day flashes on the display.

- 6 Within 1 minute, press the **◀◀** or **▶▶** button, or turn the **MULTI JOG** dial to set the day, then within 1 minute, press the **ENTER** button.

The hour flashes on the display.



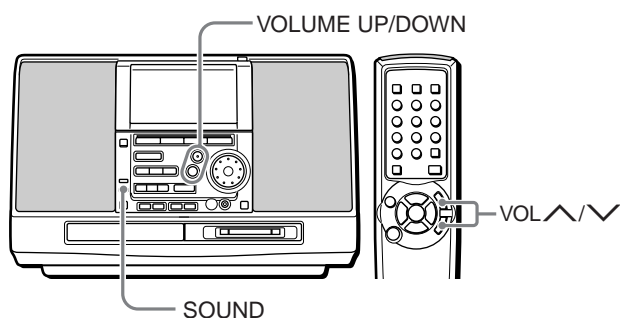
- 7 Within 1 minute, press the **◀◀** or **▶▶** button, or turn the **MULTI JOG** dial to set the hour, then within 1 minute, press the **ENTER** button.

The minute flashes on the display.

- 8 Within 1 minute, press the **◀◀** or **▶▶** button, or turn the **MULTI JOG** dial to set the minute, then within 1 minute, press the **ENTER** button.

The clock starts from 00 seconds.

ADJUSTING THE SOUND



ADJUSTING THE VOLUME

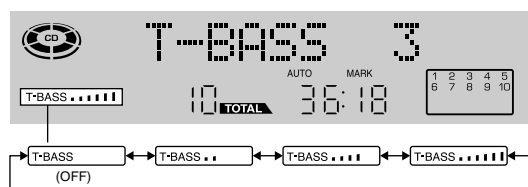
Press the **VOLUME UP/DOWN** buttons (or the **VOL** \wedge/\vee buttons on the remote control.)

The volume level is shown on the display for 5 seconds. It can be set from 0 (minimum) to 23, and then MAX (maximum). The volume remains memorized even after the power is turned off. However, if the power is turned off when the volume is set to more than 15, it is automatically set to 15 the next time the power is turned on.

ENHANCING THE BASS SOUND

The T-BASS system enhances the realism of low-frequency sound.

- 1 Press the **SOUND** button repeatedly until **T-BASS ?** appears on the display.
- 2 Within 5 seconds, press the **ENTER** button.
- 3 Within 5 seconds, turn the **MULTI JOG** dial.
Select one of the three levels, or off position.



NOTE

Low frequency sound may be distorted when the T-BASS system is used for a disc or tape in which low frequency sound is originally emphasized. In this case, cancel the T-BASS system.

EQ (EQUALIZER)

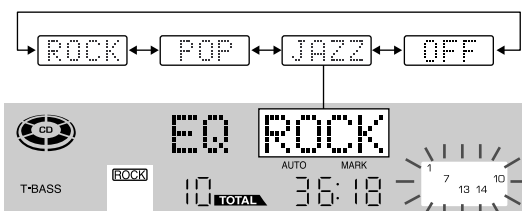
This unit provides the following three different equalization curves.

ROCK: Powerful sound emphasizing treble and bass

POP: More presence in the vocals and midrange

JAZZ: Accented lower frequencies for jazz-type music

- 1 Press the **SOUND** button repeatedly until **EQ ?** appears on the display.
- 2 Within 5 seconds, press the **ENTER** button.
- 3 Within 5 seconds, turn the **MULTI JOG** dial.
Select one of the three equalization curves, or off position.



When using the remote control, press the EQ button repeatedly.

Q SURROUND SYSTEM

The Q SURROUND system built into this unit uses only two speakers at the left and right to create an atmosphere that sounds as if you are surrounded by two front speakers and two rear speakers.

- 1 Press the **SOUND** button repeatedly until **Q SURROUND ?** appears on the display.
- 2 Within 5 seconds, press the **ENTER** button.
- 3 Within 5 seconds, turn the **MULTI JOG** dial.
Select either "Q SURROUND on" or "Q SURROUND off" according to your preference.

When the Q SURROUND system is turned on:



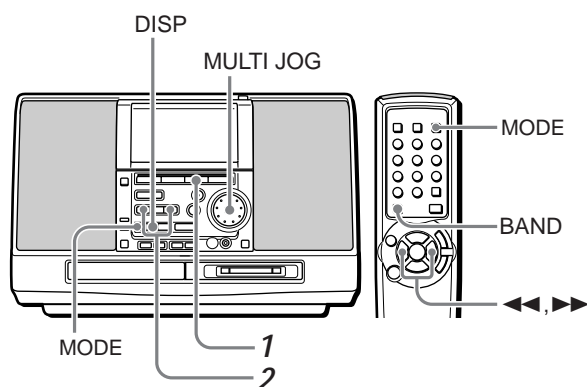
NOTE

- The Q SURROUND system does not work in monaural mode.
- At higher volumes, turning Q SURROUND on may cause sound distortion. In this case, turn the volume down.

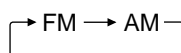
SOUND ADJUSTMENT DURING RECORDING

The output volume and tone of the speakers or headphones may be freely varied without affecting the level of the recording.

MANUAL TUNING



- 1 Press the TUNER/BAND button on the main unit or the BAND button on the remote control repeatedly to select the desired band.**



If the power is turned off, the previously tuned station will be played (Direct Play Function).

- 2 Press the ◀◀ or ▶▶ button or turn the MULTI JOG dial to select a station.**

When a station is received, "TUNE" is displayed for 2 seconds. During FM stereo reception, ((I(II))) is displayed.



To search for a station quickly (Auto Search)

Keep the ◀◀ or ▶▶ button pressed until the tuner starts searching for a station. After tuning in to a station, the search stops.

To stop the Auto Search manually, press the ◀◀ or ▶▶ button.

- The Auto Search may not stop at stations with very weak signals.

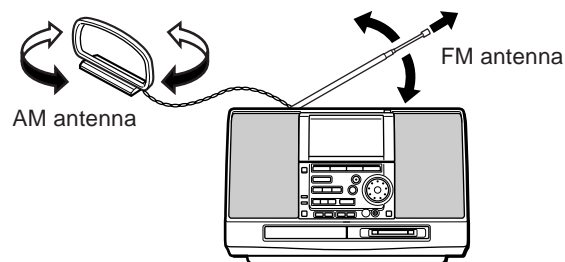
For better reception

• FM

Extend the FM antenna and orient it for the best reception.

• AM

Keep the AM antenna away from other electrical appliances and orient it for the best reception.



When an FM stereo broadcast contains noise

Press the MODE button.

MONO appears on the display.

Noise is reduced, although reception is monaural.



To restore stereo reception, repeat the above again.

To change the AM tuning interval

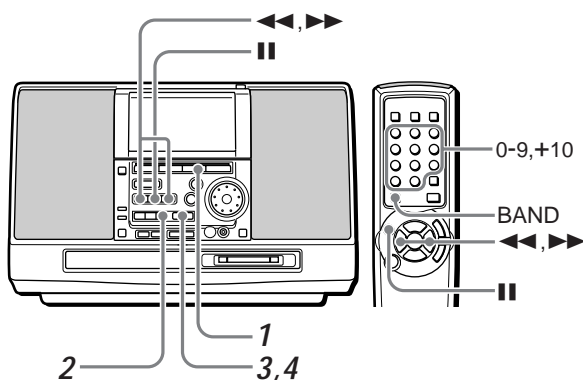
The default setting of the AM tuning interval is 9 kHz/step. If you use this unit in an area where the frequency allocation system is 10 kHz/step, change the tuning interval.

Press the TUNER/BAND button while pressing the DISP button. To reset the interval, repeat this procedure.

NOTE

When the AM tuning interval is changed, all preset stations (see "PRESETTING STATIONS") are cleared. The preset stations have to be set again.

PRESETTING STATIONS



The unit can store 15 preset stations for each band.
When a station is stored, a preset number is assigned to the station. Use the preset number to tune in to a preset station directly.

PRESETTING STATIONS AUTOMATICALLY

The unit scans through the receivable frequency range and stores stations automatically.

NOTE

Presetting stations automatically will clear all previously preset stations.

1 Press the TUNER/BAND button on the main unit or the BAND button on the remote control to select a band.

2 Press the EDIT button repeatedly until AUTO SET ? appears.

3 Within 5 seconds, press the ENTER button.
AUTO START ? appears on the display.

4 Within 5 seconds, press the ENTER button.
The unit searches for a station within the band selected at step 1.
When a tuned station is stored, the preset number assigned to the station flashes.



When automatic presetting has been completed, the display returns to the first preset station.

PRESETTING STATIONS MANUALLY

- 1 Press the TUNER/BAND button on the main unit or the BAND button on the remote control to select a band.**
- 2 Press the ◀◀ or ▶▶ button or turn the MULTI JOG dial to select a station.**
- 3 Press the EDIT button repeatedly until MANUAL SET ? appears.**
- 4 Within 5 seconds, press the ENTER button.**
The station is stored and assigned a preset number.

PRESET NUMBER TUNING

1 Press the TUNER/BAND button on the main unit or the BAND button on the remote control to select a band.

2 Press the || button.
Each time the button is pressed, the next ascending preset number is selected.
Once a preset station is tuned in, the MULTI JOG dial is also available to select the desired preset station.

Tuning by preset number

- 1 Press the BAND button on the remote control to select a band.**
(Or, use the TUNER/BAND button on the main unit.)
- 2 Press the numbered buttons on the remote control to select a preset number:**

Example:

To select preset number 10, press the +10 and 0 buttons.
To select preset number 15, press the +10 and 5 buttons.

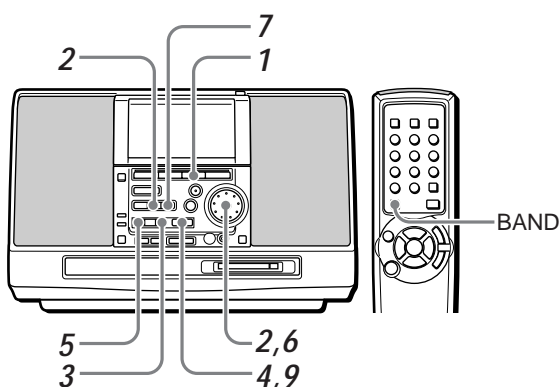
To clear a preset station

- 1 Select the preset number of the station to be cleared.**
- 2 Press and hold the || button until CLEAR OK? appears.**
- 3 Within 5 seconds, press the ENTER button.**
The preset numbers of all other stations in the band with higher numbers are also decreased by one.

NOTE

If there is a long period of power failure or disconnection of AC cord, the presetting of the stations is cancelled. In this case, preset again.

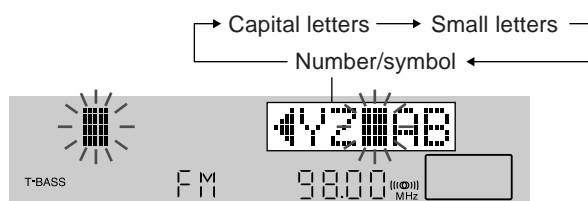
REGISTERING STATION NAME



You can register a desired name to a station which has already been stored in memory.

The registered name appears on the display when the station is tuned in.

- 1 Press the TUNER/BAND button on the main unit or the BAND button on the remote control to select a band.**
- 2 Press the button or turn the MULTI JOG dial to select a preset station.**
- 3 Press the EDIT button repeatedly until NAME EDIT ? appears.**
- 4 Within 5 seconds, press the ENTER button.**
The unit turns into character entry mode.
- 5 Press the MODE button repeatedly to select the kind of character.**



- 6 Turn the MULTI JOG dial to select a desired character.**



- 7 Press the button.**
- 8 Repeat steps 5 to 7 to enter all the required characters (up to 12 characters).**
If you leave the unit without performing any operation for one minute in steps 5 to 7, the character entry mode will be cancelled. If this happens, repeat from step 3.
- 9 Press the ENTER button.**
The entered station name is displayed.

To change a character

Press the or button repeatedly until the character to be changed flashes. Then enter the desired character again.

To delete characters

Press the or button repeatedly until the character to be deleted flashes. Then press the button.

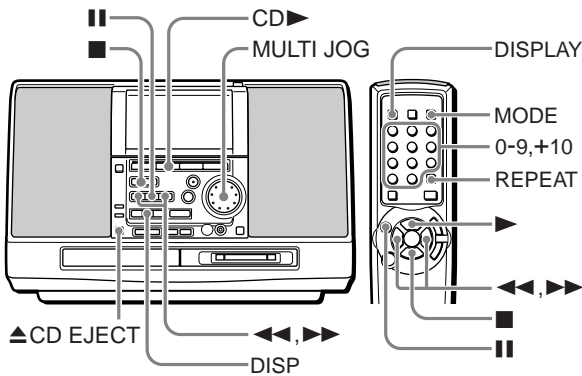
To insert a space between the characters

Press the or button repeatedly until the part to be entered as a space flashes. Then press the DISP button.

To add a character between two characters

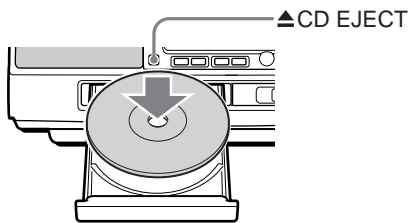
First, insert a space between two characters as described above. Then change the space to the desired character by entering it.

OPERATION



LOADING A DISC

Press the **▲ CD EJECT** button to open the disc compartment. Load a disc with the label side up and close the disc compartment.



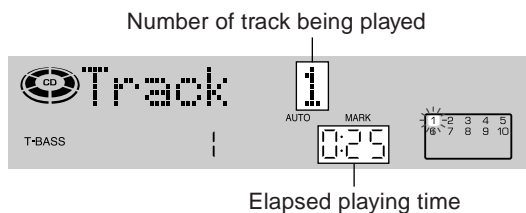
Depending on the unit's status, TOC READING may appear while the unit reads the data of the inserted disc.

PLAYING A DISC

Load a disc.

Press the **CD ►** button.

TOC READING appears on the display while the unit reads the data of the loaded CD, then play begins with the first track.



To stop play, press the **■** button.

To pause play, press the **||** button. To resume play, press the **CD ►** button.

To search for a particular point during playback, keep the **◀◀** or **▶▶** button pressed and release the button at the desired point.

To skip to the beginning of a track during playback, press the **◀◀** or **▶▶** button repeatedly or turn the MULTI JOG dial. The unit skips forward through the tracks when turning it right, and skips back when turning it left.

To remove the disc, press the **▲ CD EJECT** button.

To start play when the power is off (Direct Play Function)

Press the **CD ►** button. The power is turned on and play of the loaded disc begins.

To replace the disc before play, press the **▲ CD EJECT** button to open the disc compartment.

Selecting a track with the remote control

Press the numbered buttons and the +10 button to select a track.

Example:

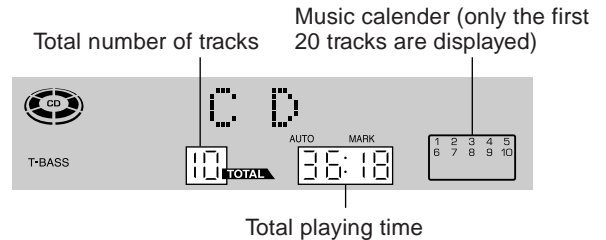
To select the 25th track, press the +10, +10 and 5 buttons.

To select the 10th track, press the +10 and 0 buttons.

The selected track starts to play and play continues to the end of that disc.

Display in stop mode

The display shows the following information.



To change the display during playback

Press the DISP button (or the DISPLAY button on the remote control) during playback.

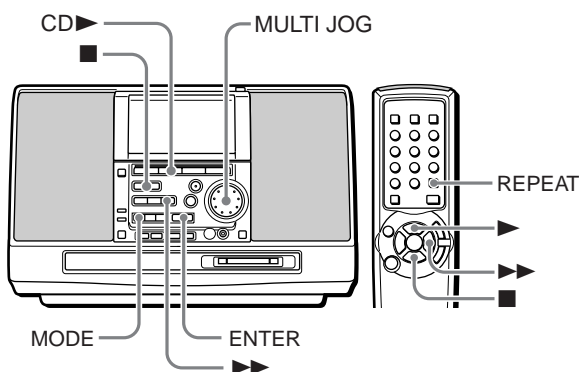
The display changes in the following order.

- ① Elapsed playing time of the track being played
- ② Remaining playback time of the current track
- ③ Total remaining playback time of the loaded CD

The total remaining playback time cannot be displayed when random play or single track repeat play (page 12) is performed.

NOTE

- Do not use irregular shape CDs (example: heart-shaped, octagonal ones). It may result in malfunction.
- When loading an 8-cm (3-inch) disc, put it onto the inner circle of the tray.
- Do not place more than one compact disc on the disc tray.



RANDOM PLAY

All the tracks on the disc can be played randomly.

In stop mode, press the MODE button on the main unit repeatedly until RANDOM? appears on the display, and within 5 seconds, press the ENTER button.

To cancel random play

In stop mode, press the MODE button on the main unit repeatedly until OFF appears on the display. Then, within 5 seconds, press the ENTER button.

NOTE

- Even if the ◀◀ button is pressed, a previously played track cannot be skipped. The unit returns to the beginning of the current track only.
- When you select a track with the numbered buttons on the remote control during the random play mode, the selected track starts to play and the random play mode is cancelled.

REPEAT PLAY

A single track or all tracks can be played back repeatedly.

Press the REPEAT button on the remote control repeatedly.

"↶1" lights up when the single track repeat play is selected, and "↶" lights up when the all tracks repeat play is selected.

To cancel repeat play, press the REPEAT button repeatedly until "↶" and "1" disappear.

To select repeat play with the MODE button on the main unit

In playback or playback pause mode, press the MODE button repeatedly to select the desired repeat play mode.

To repeat random play

First activate random play.

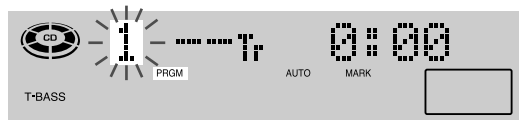
Then press the REPEAT button so that "↶" lights up.

PROGRAMMED PLAY

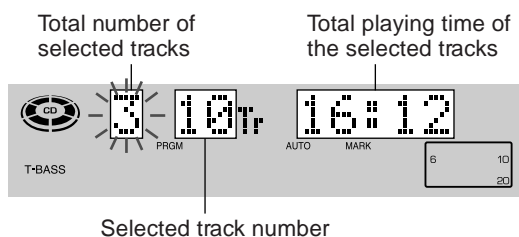
Up to 20 tracks can be programmed from the loaded disc.

1 In stop mode, press the MODE button on the main unit repeatedly until PROGRAM? appears on the display.

2 Within 5 seconds, press the ENTER button.



3 Turn the MULTI JOG dial to select a track to be programmed, and press the ENTER button.



4 Repeat step 3 to program other tracks.

5 Press the CD ► button (or the ► button on the remote control) to start play.

To check the program

Each time the ►► button is pressed in stop mode, a track number and program number will be displayed.

To clear the program

Press the ■ button in stop mode.

To add tracks to the program

Before playing, repeat step 3. The track will be programmed after the last track.

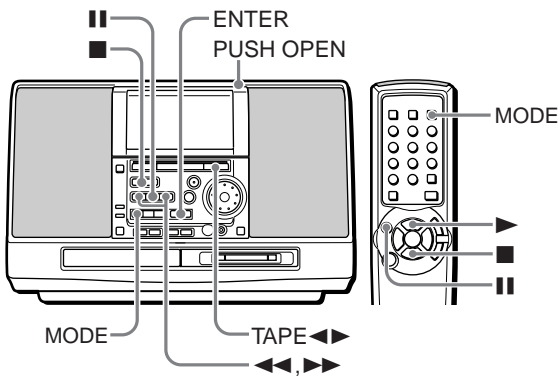
To change the programmed tracks

Clear the program and repeat all the steps again.

NOTE

- During the programmed play, the MODE and numbered buttons do not function.
- Repeating programmed play is also possible.
- If the programmed time exceeds 99 minutes 59 seconds, or the disc track number 31 or above is programmed, the display shows --:-- as the total playing time.

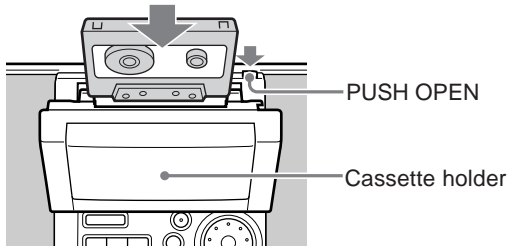
OPERATION



LOADING A TAPE

- You can select a reverse mode to play back one or both sides.
- Use Type I (normal) tapes only for playback.

Press the **PUSH OPEN** button to open the cassette holder.



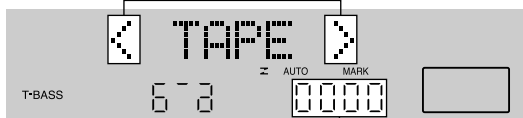
Load a tape with the exposed side facing downward.
Push the cassette holder to close.

PLAYING BACK A TAPE

Load a tape and press the **TAPE** ◀▶ button to start play.

Playback side of the tape

- ▶ The front side is being played (forward)
- ◀ The rear side is being played (reverse)



Tape counter indicates the tape running length.

To stop play, press the **■** button.

To pause play, press the **II** button. To resume play, press the **TAPE** ◀▶ button.

To change the playback side in play mode, press the **TAPE** ◀▶ button.

To change the playback side in stop mode, press the **ENTER** button.

To fast forward or rewind, press the ◀◀ or ▶▶ button in stop mode. Then press the **■** button to stop the tape.

To start play when the power is off (Direct Play Function)

Press the **TAPE** ◀▶ button. The power is turned on and play of the loaded tape begins.

To set the tape counter to 0000

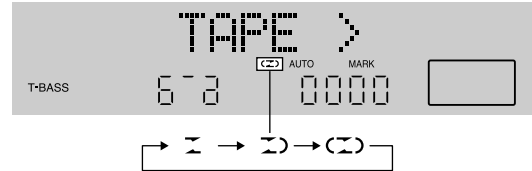
Press the **■** button in stop mode.

The counter is also set to 0000 when the cassette holder is opened.

Selecting a reverse mode

In stop mode, press the **MODE** button repeatedly.

Each time the button is pressed, the reverse mode changes.



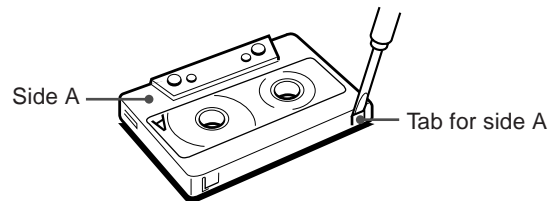
To play one side only, select **I**.

To play from front side to rear side once only, select **II**.

To play both sides repeatedly, select **III**.

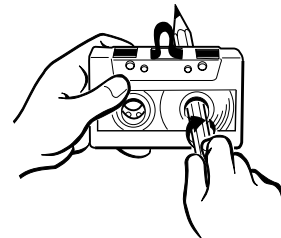
About cassette tapes

- To prevent accidental erasure, break off the plastic tabs on the cassette tape after recording with a screwdriver or other pointed tool.



To record on the tape again, cover the tab openings with adhesive tape, etc.

- **120-minute or longer tapes** are extremely thin and easily deformed or damaged. They are not recommended.
- **Take up any slack** in the tape with a pencil or similar tool before use. Slack tape may break or jam in the mechanism.



WHAT IS AN MD (MINI DISC)?

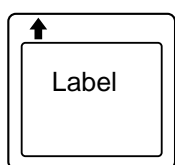
An MD is only 64 mm in diameter, about half the size of a conventional CD. But MD can be used to store and play back a full 74 minutes of data such as a CD. Unlike a CD, MD comes in a plastic cartridge, so that it can be handled with ease. The cartridge also protects the disc inside from shocks, dust and scratches. Unlike cassette tapes, which can become stretched or tangled, an MD is an excellent durable media.

TYPE OF MD

There are two types of MDs: "Optical discs" and "Magneto-optical discs". Both types use laser beams and optical pick-up technology to read recorded data during playback.

Optical discs

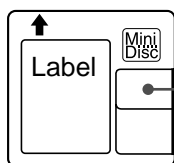
These are playback only discs. Like CDs, they are used as prerecorded music discs. You cannot record on or edit them.



The shutter covers the opening only on the non-labeled side of the MD.

Recordable MO*1 discs

These are recordable discs which can be recorded on again and again, like cassette tapes. The recording method called magneto-optical technology employs a laser and magnetism to record signals. Therefore, the quality of recorded sound does not deteriorate even after many playbacks and recordings.



The shutter covers the opening on the both sides of the MD.

*1 MO: An abbreviation of Magneto Optical

Ultra compact size made possible by ATRAC*2 technology

A newly developed digital audio compression technology called the ATRAC system automatically extracts only the frequencies that are actually audible to the human ear and cuts the frequencies which are inaudible. This compresses the amount of data to be recorded to 1/5 of the normal amount. The ATRAC system is based upon studies carried out in the field of auditory psychology and does not impair the quality of the audible sound.

*2 ATRAC: An abbreviation of Adaptive TRansform Acoustic Coding

Quick random access

One of the great features of the MD is that you can search for desired tracks quickly. There are also quick and easy functions for random playback in which the order of the tracks can be rearranged at random, and for renumbering tracks which enables them to be played in any order.

THE LIMITATIONS OF MD

Recording on the MD is performed differently from that of a cassette tape or a DAT. Therefore, the MD system is subject to the following restrictions.

"TOC* Full" is displayed even if the recording time does not reach the maximum recordable time of the disc (60-minute or 74-minute).

"TOC Full" is displayed when 254 tracks are already recorded on a disc, without respect of the recording time.

*TOC: An abbreviation of Table Of Contents

"TOC Full" is displayed even if a disc is not fully recorded on.

If there are lots of emphasis data in a particular track, the unit handles the data as index codes, and tracks are counted, in addition, without respect of the time and number of tracks.

The remaining time on a disc is not increased even after some short tracks have been erased.

When the remaining time on a disc is displayed, which may not be increased even after erasing short tracks because the sections less than eight seconds are not counted.

Certain tracks cannot be joined (the COMBINE function does not function).

- Tracks created by editing may not be joined.
- It is not possible to combine a track recorded in monaural and a track recorded in stereo.

The total of the recorded time and the remaining time on a disc does not match with the maximum recordable time of the disc (60-minute or 74-minute).

Recording is performed by the minimum unit of one cluster (two seconds). Even if the recorded section is shorter than two seconds, a two-second space is needed in recording. Therefore, the available time becomes shorter. If there are scratches on a disc, the available time becomes shorter as well, because the sections which are scratched are automatically erased.

Track numbers may not be registered properly.

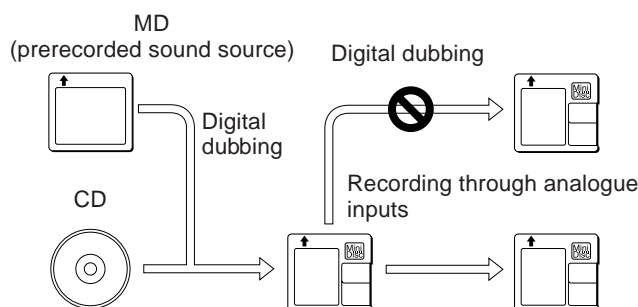
When recording from a CD through digital inputs (using the CD ► MD button), small tracks may be created depending on the contents of a CD.

When using the AUTO MARK function, track numbers may not be registered properly depending on the contents of the CD.

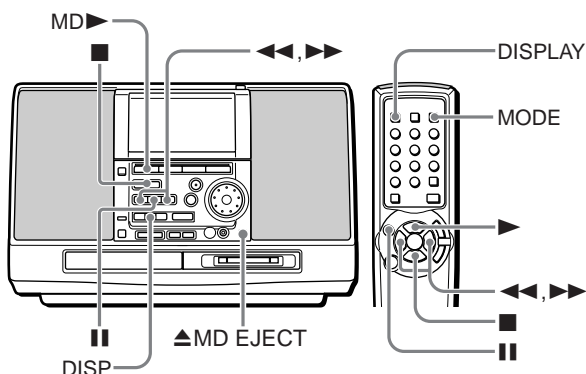
Digital inputs may not be acceptable.

When digital recording is attempted from recorded material with copyrights, digital dubbing cannot be performed to a recordable MD from another MD recorded in digital, because of the built-in record restriction function which complies with the SCMS* standard.

* SCMS (Serial Copy Management System) is the standard to restrict single digital dubbing between the digital audio system thus protecting copyrights.



OPERATION

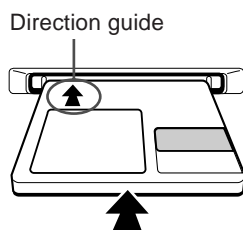


INSERTING AN MD

Insert a disc into the disc drive fully with the label side up and in the direction of the arrow.

If you insert a disc while the unit is turned off, the unit is turned on.

Depending on the unit's status, TOC READING may appear while the unit reads the data of the inserted disc.

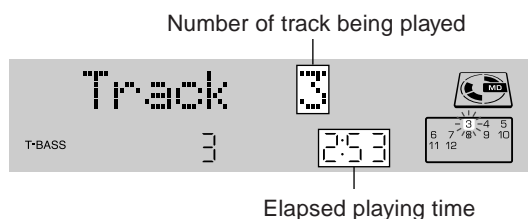


PLAYING AN MD

Insert an MD.

Press the MD ► button.

Playback begins.



To stop play, press the ■ button.

To pause, press the || button. To resume play, press the MD ► button.

To search for a particular point during playback, keep the ◀◀ or ▶▶ button pressed and release the button at the desired point.

To skip to the beginning of a track during playback, press the ◀◀ or ▶▶ button repeatedly or turn the MULTI JOG dial. The unit skips forward through the tracks when turning it right, and skips back when turning it left.

To eject a disc, press the ▲ MD EJECT button.

Do not hold the disc when ejecting the disc.



Pull the disc out.

Selecting a track with the remote control

Press the numbered buttons and the +10 button to select a track.

Example:

To select the 25th track, press the +10, +10 and 5 buttons.

To select the 10th track, press the +10 and 0 buttons.

The selected track starts to play and play continues to the end of that disc.

To start play when the power is off (Direct Play Function)

Press the MD ► button. The power is turned on and play of the inserted disc begins.

To play a disc at the double speed

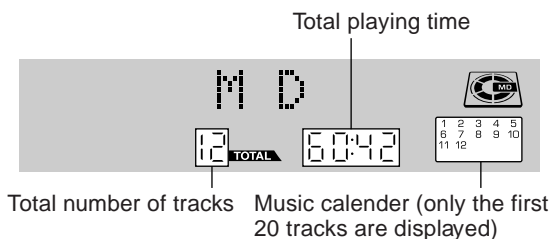
During play, keep the MD ► button pressed for more than two seconds.

To resume normal play, press the MD ► button again.

Stopping play with the ■ button also releases the double-speed playback mode.

Display in stop mode

The display shows the following information.



To change the display during playback

Press the DISP button (or the DISPLAY button on the remote control) during playback.

The display changes in the following order.

- ➔ ① Elapsed playing time of the track being played
- ② Remaining playback time of the current track
- ③ Total remaining playback time of the inserted MD
- ④ Date (year, month and day) at which the track was recorded (displayed only when the date was registered*)

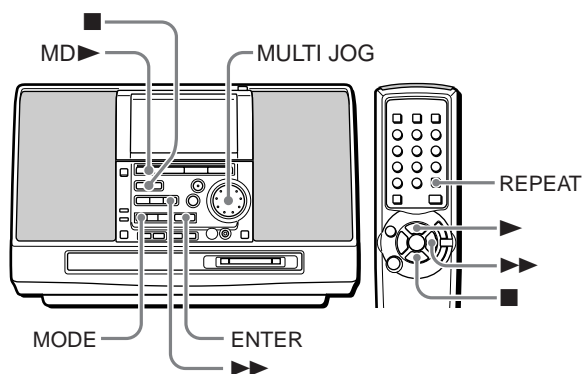
The total remaining playback time cannot be displayed when random play or single track repeat play (page 16) is performed.

* When recording on an MD is made using this unit, the recording date will be registered automatically for the recorded track.

Note, however, that the date will be registered only when the clock of this unit is set.

NOTE

- Nothing other than an MD should be inserted in the disc drive, otherwise the disc may become scratched, causing a malfunction or a safety hazard such as an electric shock.
- Do not attempt to insert another MD while a disc is already inside the drive.
- Do not tilt the unit with a disc inserted. Doing so may cause malfunctions.



RANDOM PLAY

All the tracks on the disc can be played randomly.

In stop mode, press the MODE button on the main unit repeatedly until RANDOM? appears on the display, and within 5 seconds, press the ENTER button.

To cancel random play

In stop mode, press the MODE button on the main unit repeatedly until OFF appears on the display. Then, within 5 seconds, press the ENTER button.

NOTE

- Even if the ◀◀ button is pressed, a previously played track cannot be skipped. The unit returns to the beginning of the current track only.
- When you select a track with the numbered buttons on the remote control during the random play mode, the selected track starts to play and the random play mode is cancelled.

REPEAT PLAY

A single track or all tracks can be played back repeatedly.

Press the REPEAT button on the remote control repeatedly.

"↶1" lights up when the single track repeat play is selected, and "↶" lights up when the all tracks repeat play is selected.

To cancel repeat play, press the REPEAT button repeatedly until "↶" and "1" disappear.

To select repeat play with the MODE button on the main unit

In playback or playback pause mode, press the MODE button repeatedly to select the desired repeat play mode.

To repeat random play

First activate random play.

Then press the REPEAT button so that "↶" lights up.

PROGRAMMED PLAY

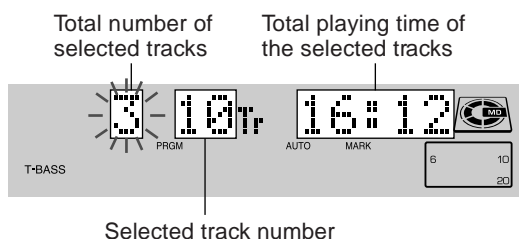
Up to 20 tracks can be programmed from the inserted disc.

1 In stop mode, press the MODE button on the main unit repeatedly until PROGRAM? appears on the display.

2 Within 5 seconds, press the ENTER button.



3 Turn the MULTI JOG dial to select a track to be programmed, and press the ENTER button.



4 Repeat step 3 to program other tracks.

5 Press the MD ► button (or the ► button on the remote control) to start play.

To check the program

Each time the ►► button is pressed in stop mode, a track number and program number will be displayed.

To clear the program

Press the ■ button in stop mode.

To add tracks to the program

Before playing, repeat step 3. The track will be programmed after the last track.

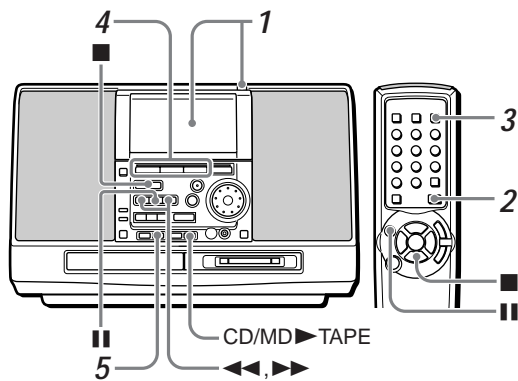
To change the programmed tracks

Clear the program and repeat all the steps again.

NOTE

- During the programmed play, the MODE and numbered buttons do not function.
- Repeating programmed play is also possible.
- If the programmed time exceeds 199 minutes 59 seconds, or the disc track number 31 or above is programmed, the display shows --:-- as the total playing time.

OPERATION

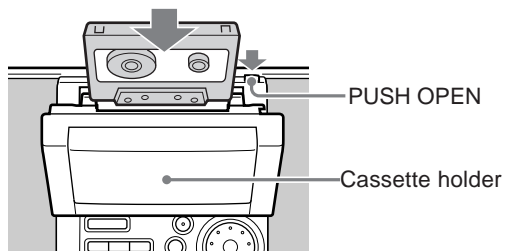


Preparation

- Set the tape to the point where recording will start.
- Use Type I (normal) tapes only for recording.

1 Load the tape to be recorded on into the deck.

Load the tape with the side to be recorded on first facing toward you and the exposed side facing downward.



2 Press the FUNCTION button on the remote control repeatedly until tape is selected.

3 Press the MODE button on the remote control repeatedly to select the reverse mode.

To record on one side only, select \square .

To record on both sides, select \square or \square .

When recording from the rear of the tape, the tape stops at the end of recording of the rear side, even if the reverse mode is set to \square or \square .

4 Prepare the source to be recorded.

To record from a radio broadcast, press the TUNER/BAND button and tune in to a station.

To record from a CD or MD, first press the CD ▶ or MD ▶ button and load the disc, then press the ◀▶ or ▶▶ button or turn the MULTI JOG dial to select the track to be recorded first.

5 Press the ● TAPE REC button to start recording.

TAPE REC appears on the display.

When the selected source is CD or MD, playback and recording start simultaneously.

To stop recording, press the ■ button. When recording from a CD or an MD, press the ■ button again to stop playback.

To pause recording, press the || button. (Applicable when the source is the radio.) To resume recording, press again.

NOTE

If squealing or beating sounds occur when recording an AM broadcast, press the MODE button repeatedly and select one of the two modes, BEAT 1 or BEAT 2, which eliminates the noise better.

RECORDING A WHOLE CD OR MD ONTO A TAPE

Use the CD/MD ▶ TAPE button to record all the tracks of a CD or MD onto a tape from the beginning.

If the tape reaches its end of the front side while a track is being played, recording of this track starts from the beginning on the opposite side of the tape.

Prepare a tape having a length longer than the total playing time of the CD or MD to be recorded.

1 Load the tape to be recorded on into the deck.

2 Press the TAPE ◀▶ button to select the side to be recorded, then set the tape to the position to start recording.

3 When recording a CD :

Load the disc and press the FUNCTION button on the remote control to select CD.

When recording an MD:

Load the disc and press the FUNCTION button on the remote control to select MD.

4 Press the CD/MD ▶ TAPE button.

Playback and recording starts simultaneously.

If recording was started from the front side of the tape, and when recording on the front side ends, recording on the rear side starts.

If recording was started from the rear side, and when recording on the rear side ends, recording stops.

To stop recording

Press the ■ button.

To stop playback, press the ■ button again.

To erase a recording

1 Insert the tape to be erased into the deck.

2 Press the TAPE ◀▶ button to select the side to be erased, then set the tape to the point where the erasure is to be started.

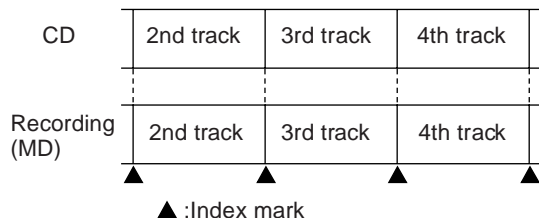
3 Press the ● TAPE REC button to start the erasure.

ABOUT THE INDEX MARK

The unit registers index marks while recording on an MD. Index marks allow you to easily locate the desired tracks.

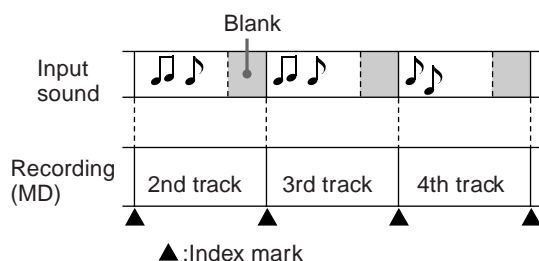
When recording from a CD

The index mark information recorded on the CD is copied as it is.



When recording from a tape

An index mark is registered automatically when a sound signal is input after a blank section lasting more than 3 seconds.



When recording from radio

The index mark information is registered every 5 minutes.

NOTE

There may be a case where index marks are not registered accurately.

MANUAL MARK FUNCTION

When recording using the ● MD REC button (page 21), you can record index mark information anytime you want by pressing the ENTER button.

To record on a previously recorded MD

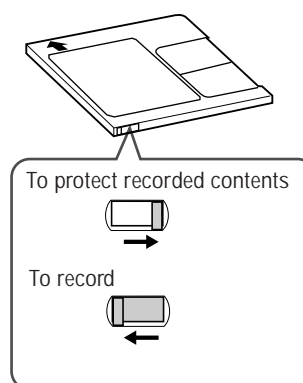
If there is an unrecorded section left on the MD, the new recording automatically starts from where the previous recording finished. If you want to start recording from the beginning of a previously recorded MD, erase the previous recording completely. (See page 25.)

To check the recordable time of the MD

Press the FUNCTION button on the remote control to select other than MD, and load an MD. Then press the DISPLAY button on the remote control (or the DISP button on the main unit). The recordable time on the MD is displayed for 5 seconds.

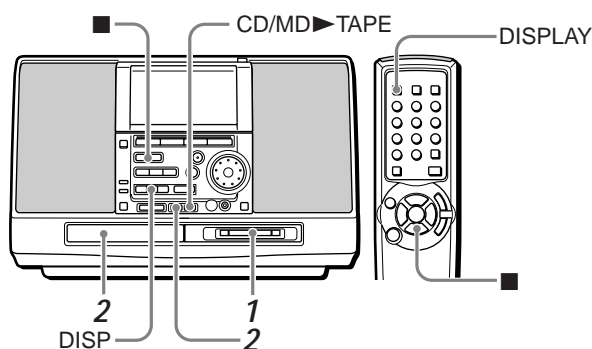
To prevent accidental erasure of recorded material

Slide the record-protect tab as shown below. Slide the tab so that it is completely locked.

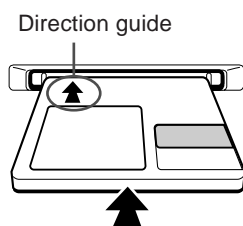


If a recording is attempted when the tab is set to the protected position, "Protected" appears on the display. Move the protect-tab to the original position.

RECORDING A WHOLE CD



- 1 Insert a recordable MD into the disc drive with the label side up and in the direction of the arrow.



- 2 Load a CD and press the CD ► MD button in stop mode.

Recording starts.



When the last track of the CD finishes playing, the recording stops automatically.

When recording stops, TOC-EDIT flashes on the display and the contents (TOC) of the recording are recorded on the MD.

To stop recording before the end of the CD

Press the ■ button. Recording to the MD stops, and the contents (TOC) of the recording are recorded on the MD.

To stop play of the CD, press the ■ button again.

To change the display during recording

Pressing the DISP button (or the DISPLAY button on the remote control) changes the information shown on the lower part of the display as follows.

- ➔ ① Elapsed playing time of the track being recorded
- ② Remaining playback time of the current track
- ③ Total remaining playback time of the inserted CD

If T. OVER appears

The remaining recordable time of the MD is not enough to record a whole CD.

Press the ■ button and replace the MD with another one.

Or press the CD ► MD button again to start recording if it does not matter whether recording is cut short or not.

RECORDING A CD ONTO A TAPE AND AN MD SIMULTANEOUSLY

- 1 Load a CD and press the FUNCTION button on the remote control to select CD.

- 2 Load a tape to be recorded, press the FUNCTION button on the remote control repeatedly until tape is selected, and press the MODE button on the remote control repeatedly to set the reverse mode to ◀▶.

Note that recording onto the MD will also stop when the tape reaches its end.

- 3 Insert a recordable MD into the disc drive.

- 4 Press the CD ► MD button and the CD/MD ► TAPE button simultaneously.

Recording onto the tape starts, while the CD enters playback pause mode and the MD enters the recording pause mode. After 8 seconds (nothing will be recorded onto the tape in this period), the CD starts to play and the recording onto the MD also starts.

To stop recording

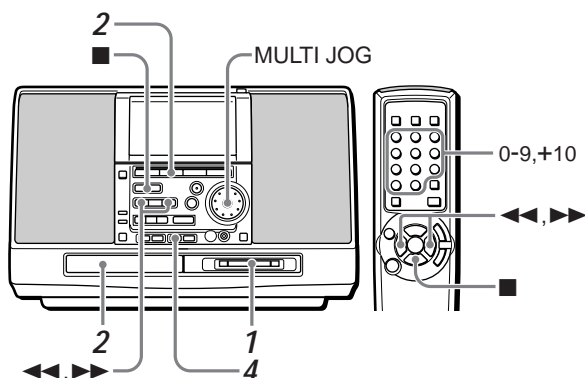
Press the ■ button.

If the tape reaches its end of the front side while a track is being played

This track will be recorded onto the tape and the MD as follows:

- ① Recording side of the tape changes from the front side to the opposite side, and the tape enters the recording pause mode.
- ② This track is recorded to its end onto the MD, and the MD enters the recording pause mode.
- ③ The tape enters the recording mode and the recording of this track starts from the beginning.
- ④ When this track is recorded to its end onto the tape, the MD re-enters the recording mode, and the subsequent tracks will be recorded onto the tape and MD.

RECORDING ONLY ONE TRACK OF A CD



1 Insert a recordable MD into the disc drive with the label side up and in the direction of the arrow.

2 Load a CD and press the CD ► button.
Playback starts.

3 Select the desired track.
Use the ◀◀ or ▶▶ button, the MULTI JOG dial, or the numbered buttons on the remote control to play back the desired track.

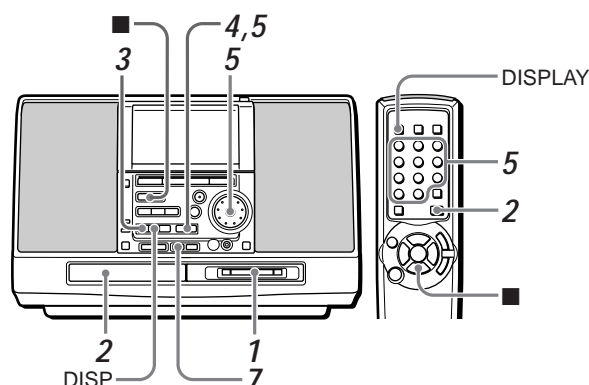
4 Press the CD ► MD button to start recording.
The CD returns to the beginning of the track and recording starts.

When the track of the CD finishes playing, the recording stops automatically, while the CD goes to the next track.
When recording stops, TOC-EDIT flashes on the display and the contents (TOC) of the recording are recorded on the MD.

To stop recording before the end of the track
Press the ■ button. Recording to the MD stops, and the contents (TOC) of the recording are recorded on the MD.
To stop play of the CD, press the ■ button again.

PROGRAMMED RECORDING OF A CD

Up to 20 tracks can be programmed and recorded on an MD.



1 Insert a recordable MD into the disc drive with the label side up and in the direction of the arrow.

2 Load a CD and press the FUNCTION button on the remote control to select CD.

3 In stop mode, press the MODE button repeatedly until PROGRAM? appears on the display.

4 Within 5 seconds, press the ENTER button.

5 Turn the MULTI JOG dial to select a track to be programmed, and press the ENTER button.

6 Repeat step 5 to program other tracks.
For detailed explanations on how to program the tracks, see page 12.

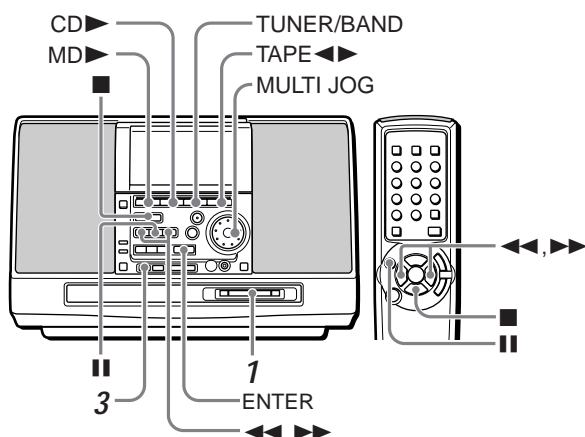
7 Press the CD ► MD button to start recording.
Recording begins.
When the programmed tracks finish playing, the recording stops automatically.
When recording stops, TOC-EDIT flashes on the display and the contents (TOC) of the recording are recorded on the MD.

To stop recording halfway
Press the ■ button. Recording to the MD stops, and the contents (TOC) of the recording are recorded on the MD.
To stop play of the CD, press the ■ button again.

To change the display during recording
Pressing the DISP button (or the DISPLAY button on the remote control) changes the information shown on the lower part of the display as follows.

- ① Elapsed playing time of the track being recorded
- ② Remaining playback time of the current track
- ③ Remaining recording time

RECORDING FROM A TAPE, CD OR THE RADIO MANUALLY



1 Insert a recordable MD into the disc drive with the label side up and in the direction of the arrow.

2 Prepare the source to be recorded.

To record from a tape, load the tape and use the TAPE ◀▶, ◀◀ and ▶▶ buttons to advance the tape to the position to start recording.

To record from a CD, load a CD and select the track with which recording is to be started using the ◀◀, ▶▶ buttons or the MULTI JOG dial.

To record from the radio, press the TUNER/BAND button and tune in to the desired station.

3 Press the ● MD REC button.

The unit enters the recording standby mode.

4 When recording from a tape, press the TAPE ◀▶ button or the MD ▶ button to start playback of the tape and recording onto the MD.

When recording from a CD, press the CD ▶ button or the MD ▶ button to start recording.

When recording from the radio, press the MD ▶ button to start recording.

To stop recording

Press the ■ button. When recording stops, TOC-EDIT flashes and the contents (TOC) of the recording are recorded on the MD.

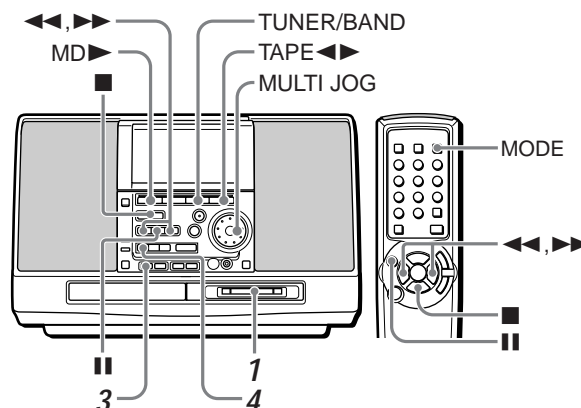
To add index marks during recording

Press the ENTER button, and an index mark is registered.

EXTENDED (MONAURAL) RECORDING

Twice as long as the time printed on the MD can be obtained if you select the monaural recording mode.

Monaural recording mode is available when recording from the tape or the radio.



1 Insert a recordable MD into the disc drive with the label side up and in the direction of the arrow.

2 Prepare the source to be recorded.

To record from a tape, load the tape and use the TAPE ◀▶, ◀◀ and ▶▶ buttons to advance the tape to the position to start recording.

To record from the radio, press the TUNER/BAND button and tune in to the desired station.

3 Press the ● MD REC button.

The unit enters the recording standby mode.

4 Press the MODE button repeatedly until MONO REC appears on the display.



5 When recording from a tape, press the TAPE ◀▶ button or the MD ▶ button to start playback of the tape and recording onto the MD.

When recording from the radio, press the MD ▶ button to start recording.

To stop recording

Press the ■ button. When recording stops, TOC-EDIT flashes and the contents (TOC) of the recording are recorded on the MD.

To add index marks during recording

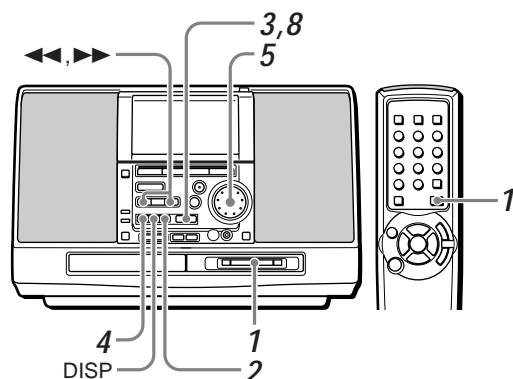
Press the ENTER button, and an index mark is registered.

To restore stereo recording

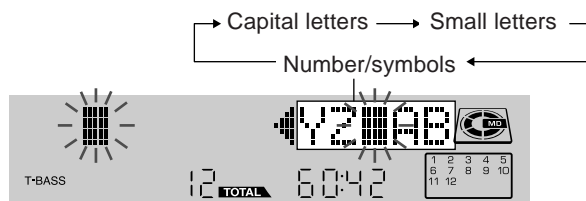
Press the MODE button repeatedly until STEREO REC appears in step 4.

REGISTERING THE DISC TITLE AND TRACK TITLE

You can register the titles of the discs and tracks.



- 1** Insert an MD to register the disc or track title, and press the **FUNCTION** button on the remote control to select the MD function.
- 2** To register a disc title, press the **EDIT** button in stop mode repeatedly until **Disc Title?** appears. To register a track title, select or play back the track and press the **EDIT** button repeatedly until **Track Title?** appears.
- 3** Within 10 seconds, press the **ENTER** button. The unit turns into character entry mode.
- 4** Press the **MODE** button repeatedly to select the kind of character.



- 5** Turn the **MULTI JOG** dial to select a desired character.



- 6** Press the **▶▶** button.
- 7** Repeat steps 4 to 6 to enter all the required characters (up to 50 characters).
If you leave the unit without performing any operation for one minute in steps 4 to 6, the character entry mode will be canceled. If this happens, repeat from step 2.
- 8** Press the **ENTER** button.
The entered disc title or track title is displayed.
When registering a track title during playback, the track will be repeatedly played until the **ENTER** button is pressed.
When the MD is removed from the unit, **TOC-EDIT** flashes and the entered title is registered.

To change a character

Press the **◀◀** or **▶▶** button repeatedly until the character to be changed flashes. Then enter the desired character again.

To delete characters

Press the **◀◀** or **▶▶** button repeatedly until the character to be deleted flashes. Then press the **||** button.

To insert a space between the characters

Press the **◀◀** or **▶▶** button repeatedly until the part to be entered as a space flashes. Then press the **DISP** button.

To add a character between two characters

First, insert a space between two characters as described above. Then change the space to the desired character by entering it.

NOTE

- While **TOC-EDIT** is flashing, do not disconnect the AC cord or do not give a strong shock to the unit. If this happens, the data of **TOC** will not be recorded properly and the edited contents on a disc will not be able to be played.
- A title cannot be registered in the following cases:
 - When a prerecorded disc is inserted ("PB DISC" appears on the display.)
 - When the protect-tab on an inserted disc is moved to the protected position ("Protected" appears on the display.)
- Editing an MD will cancel the random play mode.
- Editing cannot be performed when the unit is in the programmed play mode.

CHARACTERS THAT CAN BE REGISTERED

Capital letters

☐ (space) A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Small letters

☐ (space) a b c d e f g h i j k l m n o p q r s t u v w x y z

Numbers and symbols

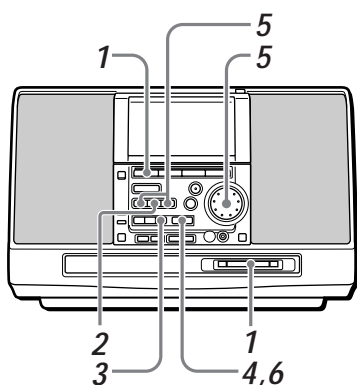
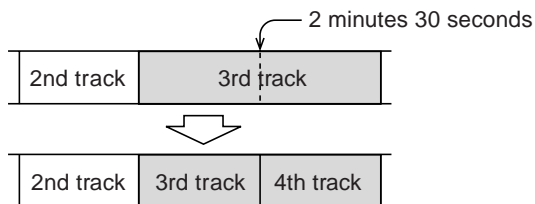
☐ (space) 0 1 2 3 4 5 6 7 8 9 ! " # \$ % & ' () * + , - . / : ; < = > ? @ _ `

DIVIDING A TRACK

You can divide a track into two tracks by registering an index mark.

Example

To divide the 3rd track into two tracks at 2 minutes 30 seconds:



- 1 Insert an MD and press the MD ► button to start play.**
- 2 During playback, press the || button at the point where you want to divide the track.**
The unit enters the playback pause mode.
- 3 Press the EDIT button repeatedly until Divide? appears on the display.**
- 4 Within 10 seconds, press the ENTER button.**
The unit plays repeatedly the 3 seconds after the point where you pressed the || button.



The point || is pressed.

When MONO is displayed, the 6 seconds after the point where you pressed the || button is played repeatedly.

- 5 Adjust the point to be divided with the MULTI JOG dial or the ◀◀ and ▶▶ buttons referring to the playback sound.**
- 6 Within 1 minute, press the ENTER button.**
An index mark is registered and the track number advances by one.
When the MD is removed from the unit, TOC-EDIT flashes and the entered title is registered.

NOTE

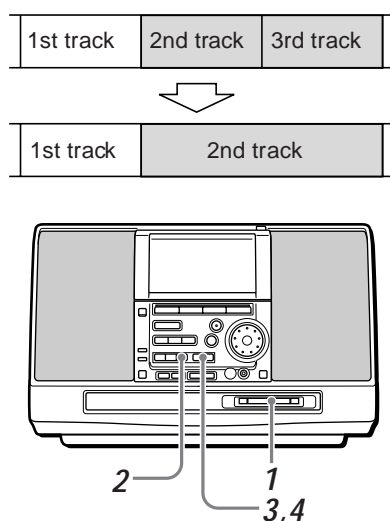
- If the track had a title before the division, the title is assigned to the first of the two divided tracks.
- A track cannot be divided when an inserted disc already contains 254 tracks.

COMBINING TWO TRACKS

You can combine two tracks by erasing the index mark in between.

Example

To combine the 2nd track and the 3rd track by erasing the index mark at the beginning of the 3rd track:



- 1 Insert an MD and play back the latter track of the two tracks to be combined.
- 2 Press the EDIT button repeatedly until Combine? appears on the display.
- 3 Within 10 seconds, press the ENTER button.

Example:

When combining the 2nd and 3rd tracks



- 4 Within 1 minute, press the ENTER button.

The two tracks are combined.

The track numbers from this point forward are decreased by 1.

When the MD is removed from the unit, TOC-EDIT flashes and the contents of the editing are registered.

NOTE

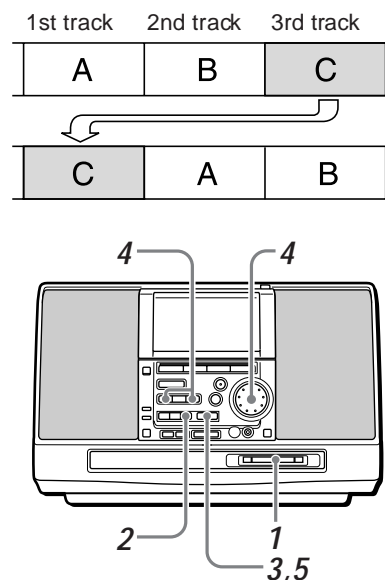
- If both of the tracks are titled, the title of the lower numbered track remains. If only one track is titled on the tracks to be combined, this title remains.
- You cannot combine a track recorded in monaural and a track recorded in stereo.

CHANGING THE ORDER OF THE TRACKS

You can change the order of tracks after completing a recording.

Example

To move the 3rd track to the 1st position



- 1 Insert an MD and play back the track to be moved.
- 2 Press the EDIT button repeatedly until Move ? appears.
- 3 Within 10 seconds, press the ENTER button.

Example:

When moving the 3rd track



- 4 Turn the MULTI JOG dial, or press the ◀◀ or ▶▶ button to select the desired track number to move the track to.

Example:

When moving to the 2nd position

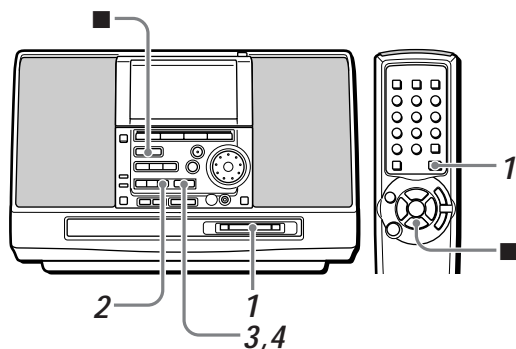


- 5 Within 1 minute, press the ENTER button.

When the MD is removed from the unit, TOC-EDIT flashes and the contents of the editing are registered.

ERASING TRACKS

ERASING ALL TRACKS ON A DISC



NOTE

If you erase all the tracks, you cannot retrieve them again.

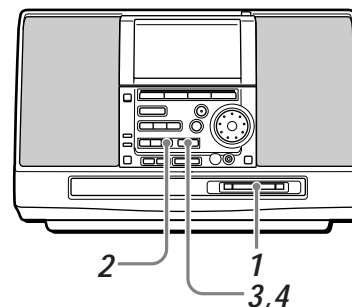
- 1 Insert an MD and press the FUNCTION button on the remote control to select the MD function.**
- 2 In stop mode, press the EDIT button repeatedly until All Erase ? appears on the display.**
- 3 Within 10 seconds, press the ENTER button.**
The display changes to Erase ??.



Make sure that it is all right to erase all tracks.
To cancel erasing tracks, press the ■ button.

- 4 Within 1 minute, press the ENTER button.**
TOC-EDIT flashes and the contents of the editing are registered.
After completion of the erasure, "Blank Disc" is displayed.

ERASING A SINGLE TRACK



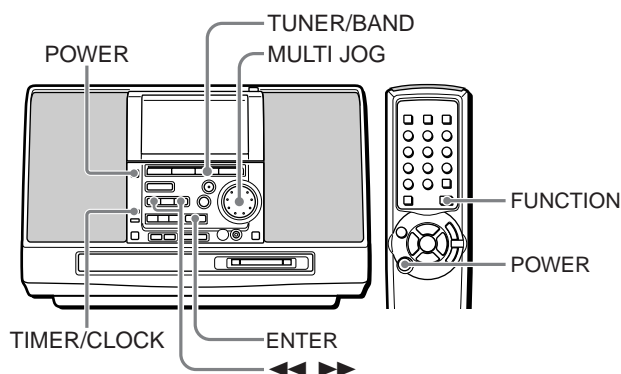
- 1 Insert an MD and play back the track to be erased.**
- 2 Press the EDIT button repeatedly until Track Erase ? appears on the display.**
- 3 Within 10 seconds, press the ENTER button.**
The display changes to Erase ??.



Make sure that it is all right to erase the track.
To cancel erasing the track, press the ■ button.

- 4 Within 1 minute, press the ENTER button.**
TOC-EDIT flashes and the contents of the editing are registered.
When erasing the track during playback, TOC-EDIT flashes after stopping playback.

TIMER PLAY AND TIMER RECORDING



The unit can be turned on at a specified time every day with the built-in timer.

Make sure the clock is set correctly. (See page 6.)

NOTE

Timer recording is available for the tuner only.

1 Prepare the source for timer play, or source and destination for timer recording.

To listen to the radio, press the TUNER/BAND button to select the desired band and tune in to the desired station.

To listen to a CD or MD, load the desired disc and press the FUNCTION button on the remote control to select the CD or MD function.

To listen to a tape, load the desired tape.

To record a radio program, press the TUNER/BAND button to select the desired band and tune in to the desired station. Then, insert an MD or load a tape, which you want to record on.

2 For timer play : press the TIMER/CLOCK button repeatedly so that **TIMER PLAY?** appears.

For timer recording : press the TIMER/CLOCK button repeatedly so that **TIMER REC ?** appears.

3 Within 5 seconds, press the ENTER button.

4 Set the hour of the timer-on time with the ◀◀ or ▶▶ button or the MULTI JOG dial, then press the ENTER button. And then set the minute of the timer-on time in the same manner.

When timer play is selected



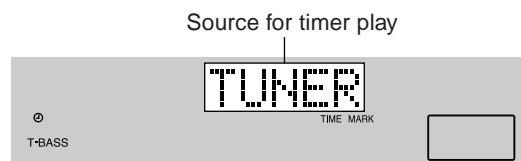
When timer recording is selected



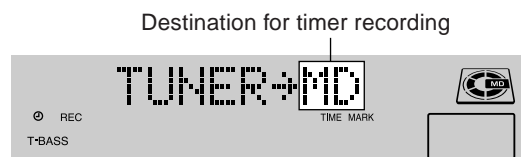
5 For timer play : select the source with the ◀◀ or ▶▶ button or the MULTI JOG dial, then press the ENTER button.

For timer recording : select the destination (MD or TAPE) with the ◀◀ or ▶▶ button or the MULTI JOG dial, then press the ENTER button.

When timer play is selected



When timer recording is selected



6 Select the duration for the timer-activated period with the ◀◀ or ▶▶ button or the MULTI JOG dial, then press the ENTER button.

The duration for the timer-activated period can be set between 5 and 180 minutes in 5-minute steps.

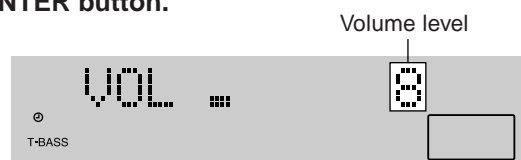
Example:

When timer play is selected



Duration for the timer-activated period

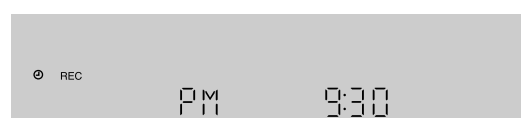
7 Adjust the volume level with the ◀◀ or ▶▶ button or the MULTI JOG dial, then press the ENTER button.



8 Press the POWER button to turn the unit off.

⊙ or ⊙REC remains on the display after the power is turned off (timer standby mode).

Note that everything on the display including ⊙ or ⊙REC will clear if the power economizing mode is turned on (page 4).



When the timer-on time is reached, the unit turns on and begins play (or recording) with the selected source and destination.

To check or change the specific items

Press the TIMER/CLOCK button repeatedly until TIMER PLAY? or TIMER REC ? appears, then press the ENTER button within 5 seconds.

Each time the ENTER button is pressed, each item is displayed. If you want to change the specific items, press the ◀◀ or ▶▶ button or turn the MULTI JOG dial.

To cancel timer standby mode temporality

Press the TIMER/CLOCK button repeatedly until TIMER OFF ? appears, and press the ENTER button within 5 seconds.

To use the unit in timer standby mode

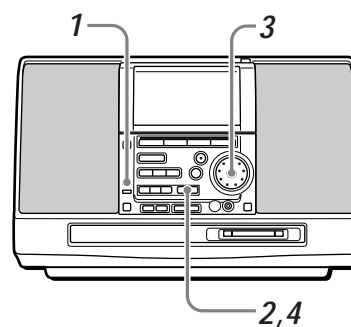
You can use the unit normally.

For timer play, make sure the source is correctly set before turning the unit off.

NOTE

- If the unit is left for one minute at steps 4 to 7, the timer setting mode is cancelled.
- Timer play and timer recording will not begin unless the power is turned off.

SETTING THE SLEEP TIMER



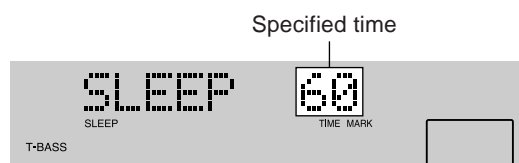
The unit can be turned off automatically at a specified time.

1 Press the TIMER/CLOCK button repeatedly until SLEEP ? appears on the display.

2 Within 5 seconds, press the ENTER button.

3 Within 5 seconds, turn the MULTI JOG dial to specify the time until the power is turned off.

The time changes between 5 and 240 minutes in 5-minute steps.



4 Press the ENTER button.

If you leave the unit without pressing the ENTER button, the sleep timer will be activated after 5 seconds automatically.

While the sleep timer is activated

The display brightness becomes darker.

To check the time remaining until the power is turned off

Press the TIMER/CLOCK button repeatedly until SLEEP ? appears, and press the ENTER button. The remaining time is displayed for 5 seconds.

To cancel the sleep timer

Select SLEEP OFF at step 3 above, then press the ENTER button.

CARE AND MAINTENANCE

Occasional care and maintenance of the unit and the software are needed to optimize the performance of your unit.

To clean the cabinet

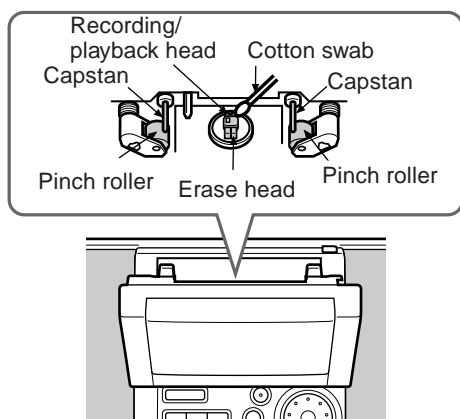
Use a soft and dry cloth.

If the surfaces are extremely dirty, use a soft cloth lightly moistened with mild detergent solution. Do not use strong solvents, such as alcohol, benzine or thinner as these could damage the finish of the unit.

To clean the heads and tape paths

After every 10 hours of use, clean the heads and tape paths with a head cleaning cassette or cotton swab moistened with cleaning fluid or denatured alcohol. (These cleaning kits are commercially available.)

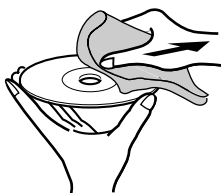
When cleaning with a cotton swab, wipe the recording/playback head, erasure head, capstans, and pinchrollers.



After cleaning the heads and tape paths with a liquid head cleaning cassette, wait until the cleaned parts are completely dry before inserting the tapes.

Care of CDs

- When a disc becomes dirty, wipe the disc from the centre out with a cleaning cloth.



- After playing a disc, store the disc in its case. Do not leave the disc in places that are hot or humid.

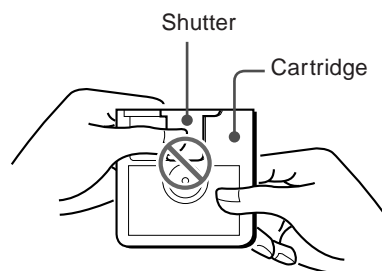
Care of tapes

- Store tapes in their cases after use.
- Do not leave tapes near magnets, motors, television sets, or any source of magnetism. This will downgrade the sound quality and cause noise.
- Do not expose tapes to direct sunlight, or leave them in a car parked in direct sunlight.

Care of MDs

Since MDs come in a cartridge which protects the discs inside from fingerprints and dust, you do not have to be overly careful when handling them. However, soiled or damaged cartridges can lead to malfunctions in the unit. Observe the following tips when handling MDs.

- Keep a cartridge in the attached case.
- Do not open the shutter of the cartridge to touch the disc directly. If the disc inside becomes soiled, it is very difficult to clean. The cartridge can also be damaged.
- Close the shutter if it opens while handling or ejecting a disc. Otherwise dust may enter inside or a disc may become scratched.



MD GUIDE MESSAGES

Message	Cause	Solution
Blank Disc	Nothing is recorded on the disc.	—
Can't Edit	Tracks are too short to be joined up.	See "THE LIMITATIONS OF MD" on page 14.
	The combine function was used while playing back the first track.	
	The divide function is used at the beginning of the track.	
	The combine function was used to join a track recorded in monaural with a track recorded in stereo.	
Disc Error	The disc is damaged by scratches.	Replace the disc.
	The unit received a strong shock during a TOC reading.	Do not subject the disc to strong shock during a TOC reading.
Disc Full	There is not enough time to record left on the disc.	Replace the disc with another recordable disc.
Temp Over	The temperature of the unit is too high.	Leave the unit in a cool place for a while before operating it again.
	The surrounding temperature is too high or too low.	Operate the unit at moderate room temperature.
Emergency	The unit operates abnormally due to a scratched disc or a strong shock.	Replace the disc. Do not subject the disc to a strong shock.
PB Disc	A prerecorded disc is attempted to edit.	Replace the disc with a recordable one.
Protected	The disc is record-protected.	Slide the record-protect tab on the disc. (See page 18.)
TOC Full	There are too many tracks or emphasis data to be recorded or edited, or there is no room on the disc.	Erase tracks.
Mecha Err	Error occurred in the loading mechanism. (All functions are disabled.)	Turn the power off and disconnect the AC cord once. Then turn it on again. If this message still appears, consult your local Aiwa dealer.
MD Error	An error occurred in the MD unit of this unit.	Contact an Aiwa service representative.
UTOOC Error	An error occurred in the TOC of the MD because the unit was subjected to a strong shock during recording, or during recording or reading of the TOC.	Exchange the MD. Do not subject the unit to strong shocks during recording, or during recording or reading of the TOC.

SPECIFICATIONS

FM tuner section

Tuning range	87.5 MHz to 108 MHz
Antenna	Rod antenna

AM tuner section

Tuning range	522 kHz to 1611 kHz (9 kHz step) 530 kHz to 1600 kHz (10 kHz step)
Antenna	Loop antenna

CD player section

Scanning method	Non-contact optical scanner (semiconductor laser)
Frequency response	40 Hz to 20,000 Hz $^{+2}_{-6}$ dB
D/A converter	1 bit dual

Cassette deck section

Track format	4 tracks, 2 channels stereo
Frequency response	50 Hz to 12,500 Hz (normal tape)
Recording system	AC bias
Heads	Recording/playback head \times 1, Erase head \times 1

MD recorder section

Scanning method	Non-contact optical scanner (Semiconductor laser application)
Recording system	Magnetic polarity modulation overwrite system
Rotation speed	Approx. 400 – 900 rpm (CLV)
Sampling frequency	44.1 kHz
No. of channels	Stereo: 2 channels Monaural: 1 channel
A-D, D-A converter	1-bit
Frequency	20 – 20000 Hz $^{+0.2}_{-1.5}$ dB
Wow and flutter	Unmeasurable

General

Speakers	80 mm cone type (2)
Output	Headphones jack (stereo mini-jack)
Power output	16 W + 16 W (DIN MUSIC POWER) 8 W + 8 W (10% T.H.D./6 Ω) 7 W + 7 W (DIN 1% rated power)
Power requirements	230 V AC, 50 Hz
Power consumption	40 W
Dimensions	399 (W) \times 252.5 (H) \times 232 (D) mm
Weight	Approx. 6.2 kg
Accessories	AC cord (1) Remote control (1) AM antenna (1)

- Specifications and external appearance are subject to change without notice.
- US AND FOREIGN PATENTS LICENSED FROM DOLBY LABORATORIES LICENSING CORPORATION.

COPYRIGHT

Please check the laws on copyright relating to recordings from discs, radio or external tape for the country in which the machine is being used.

NOTE

AIWA CO. LTD. - JAPAN - DECLARES UNDER ITS OWN RESPONSIBILITY THAT THE PRODUCT DESCRIBED IN THIS MANUAL IS IN COMPLIANCE WITH THE DIRECTIVES OF D.M. 28.8.95 No. 548, ACCORDING TO THE STIPULATIONS OF PARAGRAPH 3 OF ATTACHMENT A OF D.M. 25.6.85 AND PARAGRAPH 3 OF ATTACHMENT 1 OF D.M. 27.8.87 (REGULATIONS REGARDING FREQUENCIES).

The above information is only for Italy.

OBSERVERA

Så länge som apparaten är ansluten till nätet flyter en svag ström genom densamma, även då den är avstängd. Om man under en längre tid ej har för avsikt att använda den, drag då ur nätkabeln.

BEMÆRK

Apparatet er stadig forbundet med lysnettet, så længe stikket er tilsluttet til stikkontakten, selv om afbryteren er slået fra. Hvis apparatet ikke bruges i længere tid, skal netledningen trækkes ud.

TROUBLESHOOTING GUIDE

If the unit fails to perform as described in these Operating Instructions, check the following guide.

GENERAL

There is no sound.

- Is the AC cord connected properly?

An erroneous display or a malfunction occurs.

→ Reset the unit as stated below.

TUNER SECTION

There is constant, wave-like static.

- Is the antenna connected properly? (→ page 4)

The reception contains noise interferences or the sound is distorted.

- Is the system picking up external noise or multipath distortion?
→ Change the orientation of the antenna.
→ Move the unit away from other electrical appliances.

CASSETTE DECK SECTION

The tape does not run.

- Is the deck in pause mode? (→ page 13)

The sound is off-balance or not adequately high.

- Is the playback head dirty? (→ page 28)

Recording is not possible.

- Is the erasure prevention tab on the tape broken off?
(→ page 13)
- Is the recording head dirty? (→ page 28)

Erasure is not possible.

- Is the erasure head dirty? (→ page 28)
- Is a metal or CrO₂ tape being used?

High frequency sound is not emitted.

- Is the recording/playback head dirty? (→ page 28)

CD PLAYER SECTION

The CD player does not play.

- Is the disc correctly inserted? (→ page 11)
- Is the disc dirty? (→ page 28)
- Is the lens affected by condensation?
→ Wait approximately one hour and try again.

MD RECORDER SECTION

The MD recorder cannot be operated

- Is there a disc inside the unit ?
→ Insert a disc.
- Is the lens affected by condensation?
→ Wait approximately one hour and try again.

Sound is noisy

- Is the unit placed close to an object with a strong magnetic field such as a television?
→ Move the unit away from the television.

Sound is intermittent

- Is the unit placed on an unstable surface with a lot of vibration?
→ Place the unit on a stable surface with no vibration.

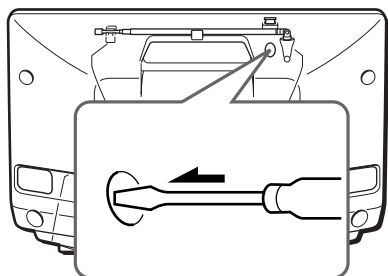
Recording is not possible

- Is the CD ► MD button pressed when attempting to record from the radio?
→ Press the ● MD REC button to record from the radio.
- Is a prerecorded disc inserted?
→ Change to a recordable disc.
- Is the disc protected by the record-protected tab on the disc?
(→ page 18)

To reset

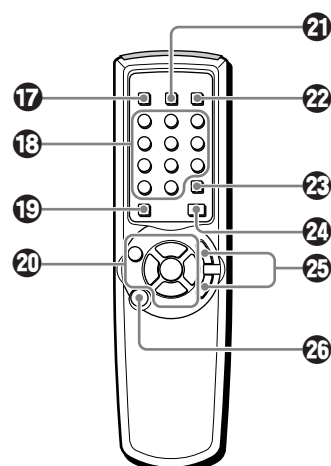
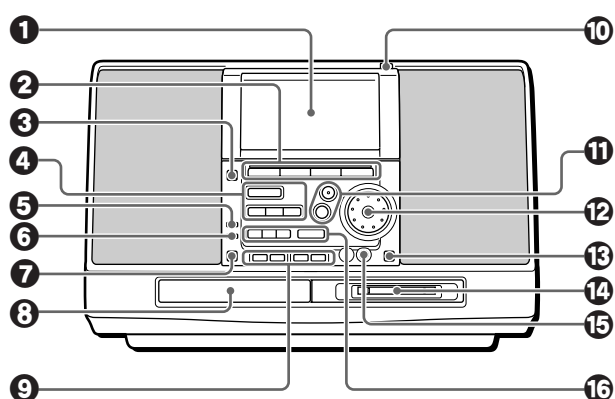
If an unusual condition occurs in the display window, reset the unit.

Press the reset button on the rear of the unit with a small screw driver or a similar tool.



Everything stored in memory after purchase is cancelled.

PARTS INDEX



Name	Page
1 Display	
2 Function buttons	
MD ► button	5, 15
CD ► button	5, 11
TUNER/BAND button	5, 8, 9, 10
TAPE ◀► button	5, 13
3 POWER button	4, 5, 26
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